REMARKS

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. Support for amended claims 6 and 24 can be found in the specification at page 2, lines 22-23. In addition, support for the ratio of 11:1 in claim 24 can be found in the specification at page 36 in table 2 example a) which has the ratio of 40/3.5 = 11:1. Support for amended claim 12 can be found in the specification at page 36 in table 2 example a) which has the ratio of 56.3/3.5 = 16:1.

Claims 14-20 and 23 are rejected under 35 U.S.C. 112, as failing to comply with the written description requirement. Claims 6 and 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel et al. (US 2001/0021375 A1, cited previously, hereafter "Hossel '375"). Claims 6 and 8-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel '375, in view of Hossel et al. (US 6,191,188 B1, cited previously hereafter "Hossel '188"). The applicant respectfully traverses these rejections.

35 U.S.C. 112 Rejection

Claims 14-20 and 23 are rejected under 35 U.S.C. 112, as failing to comply with the written description requirement. The Examiner states that the ingredient is never required and is optional however, as the Examiner stated the specification has support for the upper limit. Since claims 14-20 and 23 are dependent claims, the applicant now further requiring monomer D (claim 14) and monomer E (claim 15). These claims further limit the independent claim. As defined by the term "optional" the component can be present or absent. If the component is present it can't be present in more than the upper limit. The applicant believes that support for the monomer D and E be present can be found in the term "optional" which by definition means it can be present. For the above reasons, this rejection should be withdrawn.

Prior Art Rejections

Claims 6 and 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel '375. Claims 6 and 8-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel '375, in view of Hossel '375.

Again as previously stated in the applicant's last response, the PCT counterpart of Hossel '188 (WO 9831328) is disclosed in the applicant's specification at page 2 starting at line 20. Hossel '188 describes an aqueous composition comprising a copolymer a) based on N-vinylcaprolactam (VCap), N-vinylpyrrolidone (VP) and N-vinylimidazole (VI) and at least one polyoxyethylene C_6-C_{15} monoalkyl ether b).

In the present application cosmetic preparations are disclosed which comprise polymers which comprise certain amounts of monomers A to D and polymer E, wherein components D and E are optional. The different polymers are comparable insofar that polymer a) in is based on monomers A to D of the present application and polymer b) in Hossel '188 is selected from polymer E of the present application.

One of the problems to be solved by the present application was to provide polymers that give clear hair fixing gels. The polymers of Hossel '188 did not recognize this problem and are not able to solve the problem (see Example 1 a) at page 36 of the specification [(60 % VP (vinyl pryrrolidone), 10 % VI (vinylimidazole) and 30% VCap (vinylcaprolactam)]. The results were considered 4-5 (4 is cloudy and 5 is milky) see page 34 of the specification. Example 1b), at page 36 of the specification, is outside the scope of the applicant's claimed invention and achieved results of 4-5 (cloudy or milky) with VP/VI/VCap (37/3/60). Furthermore, Hossel '188 does not teach how the polymers might be adjusted to solve the problem.

Suitable polymers a) in Hossel '188 comprise (a) from 20 to 80% by weight, preferably from 40 to 60% by weight, of N-vinylcaprolactam, (VCap) (b_1) from 10 to 60% by weight,

preferably from 20 to 50% by weight, of N-vinylpyrrolidone(VP), (c_1) from **5 to 50% by weight, preferably from 7 to 20% by weight, of N-vinylimidazole** (VI) or quaternized N-vinylimidazole, and optionally (d_1), and where the monomer (c_1) employed is a nonquaternized N-vinylimidazole, advantageously by subsequent quaternization of the polymer (see Hossel '188 at col. 2, line 3 to 19). **Component C_1 (VI) is outside the scope of the applicant's claimed invention** (the applicant claims at most 4% compared to at least 5% by Hosssel '188). For this reason alone the rejection should be withdrawn.

The next difference is the claimed ratio of monomer C to monomer B. The applicant uses a very low amount of monomer C (VI). Transferred to Hossel '188 it would mean that the amount of monomer C (VI) must be as low as (60% VP/15 (applicant's claimed ratio of claim 1) = **4.0%** by weight or less (1:15 with regard to 60% by weight VP), **3.75% by weight or less** (the ratio 1:16 is presented in claim 12 of the present application) or as low as **2.61 % by weight** or less (1:23 with regard to 60 % by weight VP; the ratio 1:23 is presented in claim 13 of the present application). Again Hossel '188 requires a minimum of 5% by weight of monomer C.

This is related to a distance of 20 % [(5-4) /5] and 48 % [(5—2.61)/5], respectively, away from the lower limit of 5 weight % of the amount of VI in Hossel '188. Thus, it cannot be stated that routine optimization would have led the artisan to the present invention. Therefore, the teachings of Hossel '188 would not have allowed the one skilled in the art to choose the very low amounts of VI. In fact, Hossel '188 teaches away from the inventive low amounts of the present application.

Physical and chemical properties of different copolymers of the invention are shown on page 36 in the tables under example 1 and 2 of the International Application. The most convenient copolymer candidates for a hairstyling formulation in table 1 are depicted under g) to 1) providing an almost clear styling gel. No turbidity of gels comprising said copolymer

compounds can be detected. Furthermore said copolymers provide a very low tendency to stick together when formulated in a hairstyling composition.

Assuming arguendo that the Examiner has made a prima facie case of obviousness, the applicant believes the data in the specification rebuts these rejections. Example 2 in the specification provides in table 2 further polymer compositions for styling gels. Examples a) and b) establish a clear appearance and have almost no stickiness when a styling composition of said polymer is applied to the hair.

The applicant believe that the improved performance of copolymers obtained from N-vinylpyrrolidone, N-vinylimidazole and N-vinylcaprolactam can only be achieved, if the claimed ratio of N-vinylpyrrolidone and N-vinylimidazole is met.

According to the examples the ratio of N-vinylpyrrolidone to N-vinylimidazole must be at least 15:1 and one obtains poor results with a weight ratio of only 14.7:1 as shown under example m) in table 1 of the International Application.

The invention further can require the ratio of N-vinylcaprolactam to N-vinylimidazole to be at least 11:1 (cf. a) in the table of example 2). Lower ratios as indicated under a) to e) in the table of example 1 however do not provide clear polymer compositions for hairstyling purposes (see claim 24). With respect to claim 24, this claim is further distinguished from the prior art because both ratios must be met. Both features in combination cannot be gathered from the cited prior art and the large ranges of each monomer pair disclosed therein should not lead the person of ordinary skill in the art to the combination of the claimed features of claim 24. For the above reasons these rejections should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00039-US from which the undersigned is authorized to draw.

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Respectfully submitted,

Electronic signature: /Ashley I. Pezzner/
Ashley I. Pezzner
Registration No.: 35,646
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P. O. Box 2207
Wilmington, Delaware 19899-2207
(302) 658-9141
(302) 658-5614 (Fax)
Attorney for Applicant